Claims

1. Process for converting a monohydric secondary alcohol having 5 or more carbon atoms to the corresponding ketone, comprising oxidation of the alcohol to form the ketone using a bacterium of the Gluconobacter and/or Acetobacter genus in a fermentation medium.

2. Process according to claim 1, characterised in that oxidation is brought about using a bacterium of the Gluconobacter genus.

3. Process according to claim 2, characterised in that the reaction is brought about using a bacterium of the strain Gluconobacter sp. DSM 12884.

4. Process according to one of the preceding claims, characterised in that the fermentation medium contains mannitol, malt extract, yeast extract, soya flour, cottonseed flour, wheat gluten, casein, casein hydrolysate, maize steep liquor, citric acid, acetic acid or mixtures or several of these constituents and has a pH of 4 to 8 at the start of fermentation.

5. Process according to one of the preceding claims, characterised in that before fermentation, the bacterium used for fermentation is precultivated in a cultivation medium which contains mannitol, malt extract, yeast extract, soya flour, cottonseed flour, wheat gluten, casein, casein hydrolysate, maize steep liquor, citric acid, acetic acid or mixtures of two or more of these constituents and has a pH of 4 to 8 at the start of precultivation.

6. Process according to one of the preceding claims, characterised in that fermentation takes place at a temperature of 20 to 40°C.

7. Process according to one of the preceding claims, characterised in that the dissolved oxygen concentration in the fermentation medium is less than or equal to 5%.

8. Process according to one of the preceding claims, characterised in that in the fermentation 2-pentanol is converted to pentan-2-one, 2-heptanol to heptan-2-one, 2-octanol to octan-2-one, 2-nonanol to nonan-2-one, 1-penten-3-ol to 1-penten-3-one, 1-hexen-3-ol to 1-hexen-3-one, 3-hexanol to hexan-3-one, 3-heptanol to heptan-3-one and/or 3-octanol to octan-3-one.

9. Gluconobacter sp. DSM 12884.

10. Use of Gluconobacter sp. DSM 12884 for the fermentation of a monohydric secondary alcohol having 5 or more carbon atoms to form the corresponding ketone.